HAZUS HOT ZONE

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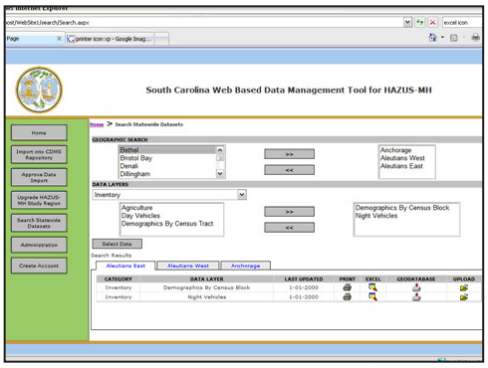
Comprehensive Data Management System Web Portal

With technical assistance from FEMA, the South Carolina Emergency Management Division (SCEMD) has successfully completed Phase 1 of a pilot project to develop a Comprehensive Data Management System (CDMS) Web Portal. This pilot project enables users to upload, download and manage HAZUS-MH datasets through the CDMS, and to use this enhanced inventory data to perform HAZUS-MH analyses.



SCEMD has long been a leader in the use of HAZUS-MH. Since 1999, the agency has given priority to enhancing the "default inventory" of assets that comes with HAZUS-MH, with emphasis on essential facilities (police, fire, schools, hospitals, emergency operations centers). By steadily

improving the GIS inventory of essential facilities, SCEMD has measurably increased the accuracy of loss estimates of these facilities and their contents from floods, earthquakes and hurricanes.

Challenges

While the inventory data is fundamental to the accuracy of HAZUS-MH analyses, users of the model face several challenges in maintaining and updating the inventory:

- Default inventory data needs to be routinely updated as development occurs and population increases.
- While data can be updated after a study region has been created, the process is cumbersome and limited only to that study region. If the user wishes to create a new study region the user must update the default data again causing the user to re-enter the same data again.
- There are no mechanisms to share the study region or updated data with other users.

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FEMA

The Florida HAZUS User Group (FLHUG):

A Catalyst for Mitigating Risks and Improving Collaboration Between Florida's Emergency Management Professionals

When Hurricane Charley, a category 4 storm, hit southwestern Florida on August 13, 2004, its impact was devastating. The largest storm to make landfall on the Florida coast since Hurricane Andrew in 1992, Charley thrust the state into mitigation mode and spurred its emergency management leaders to focus on strategies that would estimate and minimize potential losses from future hurricanes and floods. The state used HAZUS methodology as its primary tool for this work, and offered HAZUS-MH trainings regionally, beginning with the Southwest Pilot Project, as the "carrot" to entice diverse groups to become involved in Florida's mitigation planning. Professionals from Florida also participated in HAZUS-MH courses at FEMA's National Emergency Management Institute (EMI). The Florida HAZUS User Group (FLHUG) was formally organized in January 2006, when the group met to elect officers, create committees and adopt a charter. This important step expanded a process that began two years earlier, making HAZUS-MH trainings more widely available and encouraging statewide collaboration between emergency professionals in both the public and private sectors.

Membership in FLHUG allows users to build and strengthen a cohesive, informed community that can continually create stronger and more accurate mitigation plans. Individuals interested in mitigation have learned that as members of FLHUG, they benefit not only from the scenarios generated by HAZUS-MH, but by the lasting working relationships they develop with colleagues in different fields. GIS professionals, emergency managers, researchers, medical personnel, legislative contacts, local planners, technical experts, American Red Cross workers, facility managers and government officials can all use FLHUG to communicate with and learn from each other, sharing resources and supporting each other's work. In addition to user networks, strong support from the Florida Division of Emergency Management and FEMA Region IV has been critical to the success of Florida's coordinated, statewide program.

FLHUG members recruit new users interested in learning HAZUS-MH by making presentations and giving workshops at conventions and meetings throughout the state. These have been given at the Florida Governor's Hurricane Conference, the Southeast Regional User Group Conference (SERUG), the Seven Hills Regional User Group GIS Workshop, the Central Florida GIS Workshop, the South Florida GIS Exposition, the National Flood Insurance Conference, the ESRI International User Conference and the National HAZUS User Conference.

Training Information

ESRI Web Courses Are a Hit

The newest way to learn about HAZUS-MH is quickly becoming a top download through ESRI's virtual campus. You can access the following courses at www.esri.com/hazusmhtraining.

HAZUS-MH for Decision Makers

This seminar provides an overview of the capabilities of HAZUS-MH and how it can support mitigation, response and recovery efforts.

FREE

HAZUS-MH Overview and Installation

This Web course provides an overview of the capabilities of HAZUS-MH. During the workshop you will learn to install the HAZUS-MH software, define a study region and explore the basic types of analysis that HAZUS-MH can perform as well as the types of information about the social and economic impacts of natural hazards that it can generate.

FREE

Introduction to Using HAZUS-MH to Assess Losses from a Riverine Flood Hazard

This Web course explains the process of defining a riverine flood hazard and performing a loss estimation using HAZUS-MH. While HAZUS-MH offers a wide range of options for defining a flood hazard, this module focuses on the two options that require the least amount

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Solutions

The CDMS Web Portal addresses these issues:

- It enables the user to enter, update and share data for HAZUS-MH to facilitate hazard identification and risk analysis for flood, earthquake and hurricane (wind) hazards.
- It is integrated with the CDMS, a desktop application that allows HAZUS-MH users to import and manage HAZUS-MH Level 1 datasets, including: 1) Site Specific Inventory Data; 2) Aggregated General Building Stock Data; and 3) Building Specific Data.
- As a Web portal, it only requires a browser and either Microsoft® Access® or MS Excel® to operate.
- It has a "role-based security" feature, which means that the administrator can assign very specific roles and user rights to a range of users (e.g., updating of essential facilities in select counties).
- A user can export data as either an Excel spreadsheet or a geodatabase (*.mdb) file. The user can update the data in Excel, Access or GIS software. When the updates are complete, the data will be re-imported and the data will be updated in the statewide database when it is transferred from the repository.

Next Steps

Following successful tests of the Web Portal, SCEMD is moving forward into the implementation phase, which will include training of staff and identification of potential applications. Meanwhile, the Florida Division of Emergency Management is adapting the Web portal technology to their own statewide version, with technical assistance from FEMA.

Discussions are underway between FEMA and interested states on improvements to future versions of the CDMS Web Portal. These include:

- Incorporation of functionality into the Web Portal to enable the user to interact directly with HAZUS-MH applications on a user's desktop computer.
- Development of a mapping capability to enable users from multiple remote sites to view datasets and use this information to support decisions on risk assessment, mitigation and response.

Additional information on this new tool will be found on the FEMA HAZUS Web site, including a PowerPoint file with detailed notes.

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of user input – defining a flood hazard based on a return period and defining a flood hazard based on a stream discharge.

$26.00 USD

Integrating User Supplied Hazard Data into the HAZUS-MH Flood Model

This Web course addresses the process of integrating hazard data developed in sophisticated flood engineering models into HAZUS-MH for the purpose of performing a more precise flood loss estimation study than is typically possible in a basic HAZUS-MH analysis.

$26.00 USD

HAZUS-MH Flood Model Output and Applications

This module provides an overview of the many types of output that the flood model can generate with a focus on how this information can be effectively used by communities to better plan for and prevent losses from flood events.

$26.00 USD

HAZUS Podcasts

As part of the ESRI Instructional Series, Kevin Mickey, Director of Professional Education and Outreach at The Polis Center, Indiana University, Indianapolis and Vincent Brown, Senior Program Specialist in the Mitigation Division at FEMA have produced a free short-audio recording that provides an overview of the courses listed above and their objectives as well as the ideal candidates for them and how they will benefit from the training.

To find the podcast, go to http://www.esri.com/news/podcasts/speaker_series.html and then click on "Interviews with ESRI Users". The podcast is the third one on the list.

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Fast Facts

HAZUS-MH produces loss estimates based on state-of-the-art scientific and engineering knowledge and software architecture. These estimates are essential for decision-making at all levels of government, and are a basis for developing mitigation plans and policies, emergency preparedness, and response and recovery planning.

HAZUS Users of the Year: 4th Quarter 2007

Congratulations to Rick Burgess, the 2007 4th Quarter HAZUS User of the Year! Mr. Burgess is the GIS Planner for the City of Punta Gorda and is the Florida HAZUS User Group (FLHUG) President. Mr. Burgess is the main proponent for the entire HAZUS program in Florida. He began using HAZUS methodology in 2004 following Hurricane Charley. This devastating hurricane pushed the state of Florida to incorporate mitigation measures into its planning efforts and estimate potential losses from future floods and hurricanes. Mr. Burgess recognized the power of HAZUS at that time and (with the help of FEMA Region IV and other GIS professionals) formed the Florida HAZUS User Group (FLHUG), which now has seven regional chapters and an organizational structure that includes four committees.

Mr. Burgess is a FEMA-authorized vendor for the HAZUS-MH hurricane model and has recognized that for HAZUS methodology to be adopted throughout the state and for the emergency management community to use the tool to its full potential, organizing and teaching regional training classes was the place to start.

Mr. Burgess and the FLHUG were recognized at the 2007 National HAZUS User Conference with an award for "Organization and Data Management." His drive, vision, patience and perseverance made the FLHUG a reality. Accordingly, FEMA recognizes Rick Burgess as a champion and true supporter of HAZUS through his dedication and hard work.

Call for Speakers

2nd Annual HAZUS User Conference: From Data Collection to Decision Making

Are you interested in speaking at the 2008 HAZUS User Conference?

We are currently looking for qualified speakers and professionals to address current projects, discuss partnership opportunities and share best practices at our educational portion of the HAZUS User Conference to be held August 6-8 in San Diego, California.

To submit an abstract, please e-mail Beth Howser at bmhowser@pbsj.com with the subject line: HAZUS Speaker Proposal and provide the following information:

- Proposed Name of Session
- Session Format
- Session Description
- Contact Information (including name, title, organization, phone number and e-mail)